AMENDMENTS TO THE SPECIFICATION:

Please amend the specification as follows:

Page 2, line 18-page 3, line 6:

~~Japanese Patent Laid-open No. Hei 6-038768~~Japanese Patent Laid-open No. Hei 6-038758 (see claim 1 and elsewhere) discloses a technique for eliminating thermal fluctuations in a high-viscosity solution or under an electric field under the premise of its application to a method or system that treats DNA, RNA, its derivative, its fragments by an enzymatic reaction or chemical reaction. This technique is described to permit efficiently and accurately performing the treatment of high molecules of DNA such as the synthesis reaction of DNA strands. Specifically, this technique is intended to allow high molecules of DNA to undergo an enzymatic reaction or chemical reaction under the existence of an electric field.

Page 3, lines 7-22:

Further, ~~Japanese Patent Laid-open No. Hei 8-322568~~ Japanese Patent Laid-open No. Hei 8-322569 (claim 1, Paragraph [0001], and elsewhere) discloses a DNA replication process, which is characterized in that in an annealing reaction step of binding a primer to a single-stranded template DNA and a synthesis reaction step of allowing a DNA stand to stretch from the primer, an electric field is applied to a reaction solution with materials, a synthase and the like contained for the purpose of the synthesis to bring the template DNA into a linear form. This technique is intended for use in the sequential analysis for the determination of the base sequence of DNA or in

the PCR method for the amplification of a DNA sample, and therefore, has as a premise that the components required for the above-described object are contained in the reaction solution to which an electric field is to be applied.

Page 4, line 21-page 5, line 8:

The present invention, firstly, provides a nucleic acid stretch method of stretching the following single-stranded nucleic acid (1) or (2) by causing an ac electric field of a high frequency to act on the single-stranded nucleic acid (1) or (2): (1) a single-stranded nucleic acid existing in a free form in pure water or an aqueous solution of pH 5 to 11, or (2) a single-stranded nucleic acid existing in a form immobilized on one or both of opposing electrodes arranged facing said aqueous solution; and also a nucleic acid stretch system ~~making use of the stretch means~~ making use of the stretch method.

Page 5, lines 9-16:

The present invention also provides a DNA chip making use of a means for stretching a single-stranded nucleic acid, which exists in a free or immobilized form ~~in an aqueous solution of pH 5 to 11~~ in pure water or an aqueous solution of pH 5 to 11, under an action of a high-frequency ac electric field applied to a reaction well with pure water or said aqueous solution of pH 5 to 11 retained therein or under an action of dielectrophoresis.

Page 5, lines 17-24:

It is to be noted that the term "aqueous solution" as used herein means pure water or an aqueous solution of ~~pH 6 to 11~~ pH 5 to 11 which is absolutely free of a nucleic acid material, an enzyme and any other high molecular component, such as a primer, for the purpose of DNA synthesis. The aqueous solution functions as a liquid

phase which can provide a place of hybridization between nucleic acids having complementary strands.

Page 10, line 14-page 11, line 2:

In the construction depicted in Fig. 5, the other electrode e arranged opposite the electrode E is formed with a smaller area so that a non-uniform electric field is formed concentrating on the electrode e (as indicated by alternate long-and-short lines in Fig. 5). It is to be noted that for the formation of a non-uniform electric field, a construction with the surfaces of electrodes formed into rough surfaces having concavities and convexities by surface treatment ~~such as sputtering and by etching~~ such as sputtering or by etching or the like or a like construction can be adopted, because electric lines of force concentrate at the convexities and pointed edge portions of the electrodes.

Page 13, lines 5-12:

A DNA chip with a number of such reaction detecting sections 6 as illustrated in ~~Fig. 7~~ Fig. 6 arrayed on a substrate can be provided. For example, a number of reaction detection sections 6 as described above are arrayed radially or in the direction of a circumference on such a disk plate 10 as shown in Fig. 7, and desired DNA probes 7 can be immobilized in the reaction detecting sections 6 divided in groups.